

CLAIMS:

1. Magnetic resonance method for forming a dynamic image from a plurality of signals of an object moving relative to at least one RF receiving antenna, whereas imaging is acquired by at least two adjacent fields of view (FOV), which are reconstructed to an image over a region of interest which includes both FOVs, characterized in that
 - 5 - a sensitivity map of the at least one RF receiving antenna at each position relative to the object determined by each FOV is provided,
 - data from the object to be imaged is sampled for each FOV with a reduced number of phase encoding steps with respect to the full set thereof at a fixed position relative to the main magnetic field, and
 - 10 - the image is reconstructed from the subsampled signals, which are weighted with the sensitivity factor of the RF receiving antenna at the respective imaging position.
2. Magnetic resonance method according to claim 1, characterized in that a single RF receiving antenna is used.
- 15 3. Magnetic resonance method according to claim 1 or 2, characterized in that a single RF transmitting antenna is used, whereas the size of the transmitting antenna is larger than the size of the receiving antenna.
- 20 4. Magnetic resonance method according to claim 1, characterized in that a single RF antenna is provided for transmitting and receiving RF signals.
5. Magnetic resonance method according to claim 1, characterized in that an array of RF receiving antennae is used.
- 25 6. A magnetic resonance imaging apparatus for obtaining a dynamic image from a plurality of signals of an object (3) moving relative to at least one RF receiving antenna (7), comprising:
 - a patient table (4) for movement through the bore (2) of a magnet

- at least one RF receiving antenna (7),
- means for acquiring an image over a region of interest which includes at least two adjacent fields-of-view (FOV),
- means for providing a sensitivity map of the at least one RF receiving antenna at each position relative to the object determined by each FOV prior to imaging,
- means for sampling data from the object to be imaged for each FOV with a reduced number of phase encoding steps with respect to the full set thereof at a fixed position relative to the main magnetic field, and
- means for reconstructing the image from the subsampled signals, which are weighted with the sensitivity factor of the RF receiving antenna at the respective imaging position.

7. A computer program product stored on a computer usable medium for forming a dynamic image with the magnetic resonance method, comprising a computer readable program means for causing the computer to control the execution of:

- moving a patient table for through the bore of a magnet
- sampling data from at least one RF receiving antenna,
- acquiring an image over a region of interest which includes at least two adjacent fields-of-view (FOV),
- providing a sensitivity map of the at least one RF receiving antenna at each position relative to the object determined by each FOV prior to imaging,
- sampling data from the object to be imaged for each FOV with a reduced number of phase encoding steps with respect to the full set thereof at a fixed position relative to the main magnetic field, and
- reconstructing the image from the subsampled signals, which are weighted with the sensitivity factor of the RF receiving antenna at the respective imaging position.